Effect of MP1, Corbett and MP2 Service Retirement Factors

The Retirement Factors applied to the benefit formulas for General and Safety Members were increased under Manager's Proposal 1. This resulted in a substantial increase in monthly retirement allowances, although the benefits of Safety Members were limited to 90% of Final Compensation. The percentages of Final Compensation accrued for each year of service before and after Manager's Proposal 1, assuming the participant was not contributing to Social Security (non-integrated), were as follows.

Multipliers for General Members		
Retirement Age	Before MP1	After MP1
55	1.48%	2.00%
56	1.55%	2.00%
57	1.63%	2.00%
58	1.72%	2.00%
59	1.82%	2.08%
60	1.92%	2.16%
61	1.99%	2.24%
62	2.09%	2.31%
63	2.20%	2.39%
64	2.31%	2.47%
65+	2.43%	2.55%

Multipliers for Safety Members						
Retirement Age	Police		Fire		Lifeguard	
	Before MP1	After MP1	Before MP1	After MP1	Before MP1	After MP1
50	2.50%	2.50%	2.20%	2.50%	2.00%	2.20%
51	2.54%	2.60%	2.32%	2.60%	2.10%	2.32%
52	2.58%	2.70%	2.44%	2.70%	2.22%	2.44%
53	2.62%	2.80%	2.57%	2.80%	2.34%	2.57%
54	2.66%	2.90%	2.72%	2.90%	2.47%	2.72%
55	2.70%	2.99%	2.77%	2.99%	2.62%	2.77%
56+	2.77%	2.99%	2.77%	2.99%	2.62%	2.77%

These increases were retroactive. They increased the benefit accrued for all years of service, rather than for the years after their implementation only. This resulted in an

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increase to the unfunded pension liability because the cost for both past and future benefits increased.

The actuarial accrued liability for active participants attributable to these increases was $159 million at June 30, 2005. This is the amount of liability created by past service as of June 30, 2005. All of this liability is included in the unfunded actuarial accrued liability of $1.394 billion. Without this liability, the funded ratio of the System would have been 70.72% rather than 68.15%.

There was also a liability at June 30, 2005 created by future service as of June 30, 2005. That liability was $102 million. None of this liability is included in the unfunded actuarial accrued liability of $1.394 billion.

Under the Corbett Settlement, retirees were given an option of new retirement factors, which were higher than the ones in place. If the retiree chose the old benefit formula, Final Compensation was to be increased by 10% to compensate for the lower retirement factors. These increases were retroactive. They increased the benefit accrued for all years of service, rather than for the years after their implementation only. This resulted in an increase to the unfunded pension liability because the cost for both past and future benefits increased.

Options for Retirement Factors					
Age	Old Factors		Corbett Factors	General	
	Police & Fire	Lifeguard	Safety	Old Factors	Corbett Factors
50	2.50%	2.20%	3.00%	--	--
51	2.60%	2.32%	3.00%	--	--
52	2.70%	2.44%	3.00%	--	--
53	2.80%	2.57%	3.00%	--	--
54	2.90%	2.72%	3.00%	--	--
55	2.99%	2.77%	3.00%	2.00%	2.25%
56	2.99%	2.77%	3.00%	2.00%	2.25%
57	2.99%	2.77%	3.00%	2.00%	2.25%
58	2.99%	2.77%	3.00%	2.00%	2.25%
59	2.99%	2.77%	3.00%	2.08%	2.25%
60	2.99%	2.77%	3.00%	2.16%	2.30%
61	2.99%	2.77%	3.00%	2.24%	2.35%
62	2.99%	2.77%	3.00%	2.31%	2.40%
63	2.99%	2.77%	3.00%	2.39%	2.45%
64	2.99%	2.77%	3.00%	2.47%	2.50%
65	2.99%	2.77%	3.00%	2.55%	2.55%

Thus, benefits for General and Safety Members were the greater of:

1. Old Retirement Factor x Years of Service x Final Compensation x 110%

1446.2

2. Corbett Retirement Factor x Years of Service x Final Compensation

Note that for general members, the Corbett factor (Corbett Settlement, Section C, page 8, line 1) produced a higher benefit at retirement ages 55 – 58 and the 10% final compensation increase applied to the old factor produced a higher benefit at age 59 and higher. For safety members, the Corbett factor (Corbett Settlement, Section B, page 7, line 6) produced a higher benefit at retirement ages 51 – 53 and the 10% final compensation increase applied to the old factor produced a higher benefit at age 54 and higher.

The actuarial accrued liability for active participants attributable to these increases was $115 million at June 30, 2005. This is the amount of liability created by past service as of June 30, 2005. All of this liability is included in the unfunded actuarial accrued liability of $1.394 billion. Without this liability, the funded ratio of the System would have been 70.00% rather than 68.15%.

There was also a liability at June 30, 2005 created by future service as of June 30, 2005. That liability was $80 million. None of this liability is included in the unfunded actuarial accrued liability of $1.394 billion.

New MP2 retirement factors were determined for General Members effective July 1, 2002. These increases were retroactive. As with the addition of the Corbett factors, General Members are given an option of whichever factors offer the largest benefit. Election of the new factors carries a maximum benefit of 90% of Final Compensation. The choices are outlined below.

GENERAL MEMBER RETIREMENT CALCULATION FACTORS

Retirement Age	Unmodified Factors Effective 6/30/00 (Old Factors)	Unmodified Factors Effective 7/1/00 (Corbett Factors)	Unmodified Factors Effective 7/1/02 (New Factors)
55	2.00%	2.25%	2.50%
56	2.00%	2.25%	2.50%
57	2.00%	2.25%	2.50%
58	2.00%	2.25%	2.50%
59	2.08%	2.25%	2.50%
60	2.16%	2.30%	2.55%
61	2.24%	2.35%	2.60%
62	2.31%	2.40%	2.65%
63	2.39%	2.45%	2.70%
64	2.47%	2.50%	2.75%
65+	2.55%	2.55%	2.80%

1446.3

There were no new factors for Safety Members, but they still have a choice between the Old factors and the Corbett factors, both with a 90% maximum replacement ratio.

The actuarial accrued liability for active participants attributable to these increases was $177 million at June 30, 2005. This is the amount of liability created by past service as of June 30, 2005. All of this liability is included in the unfunded actuarial accrued liability of $1.394 billion. Without this liability, the funded ratio of the System would have been 71.02% rather than 68.15%.

There was also a liability at June 30, 2005 created by future service as of June 30, 2005. That liability was $95 million. None of this liability is included in the unfunded actuarial accrued liability of $1.394 billion.

Of the present value of accumulated benefits, $163 million was attributable to MP2 enhanced service retirement factors credited to active participants. If these values did not exist, the System would have had a market value of assets equal to 98% of the PVAB. The System's market value of assets would have been just under 100% of the present value of already vested accumulated benefits. The value of additional accumulations in fiscal year 2006, caused by MP2, is $17 million.

The actuarial required contribution at the beginning of the 2007 fiscal year was calculated by Cheiron to be $162 million. That would be reduced by $16 million if the MP2 service retirement factors did not exist.

When the effects of all three sets of service retirement factors are combined, the following results.

The actuarial accrued liability for active participants attributable to all of these increases was $451 million at June 30, 2005. This is the amount of liability created by past service as of June 30, 2005. All of this liability is included in the unfunded actuarial accrued liability of $1.394 billion. Without this liability, the funded ratio of the System would have been 75.98% rather than 68.15%.

There was also a liability at June 30, 2005 created by future service as of June 30, 2005. That liability was $277 million. None of this liability is included in the unfunded actuarial accrued liability of $1.394 billion.

Of the present value of accumulated benefits, $440 million was attributable to these enhanced service retirement factors credited to active participants. If these values did not exist, the System would have had a market value of assets equal to 107% of the PVAB. The System's market value of assets would have been just under 108% of the present value of already vested accumulated benefits. The value of additional accumulations in fiscal year 2006, caused by these enhancements, is $48 million.

1446.4

The actuarial required contribution at the beginning of the 2007 fiscal year was calculated by Cheiron to be $162 million. That would be reduced by $42 million if these service retirement factors did not exist.

The values presented herein were calculated using the actuarial assumptions used by Cheiron in their June 30, 2005 actuarial valuation. The demographic data was supplied by Cheiron. Although individual tests of the demographic data were not performed, the data was used to perform an estimate of the Cheiron valuation. The result was that I calculated a FY07 contribution at the beginning of the year of $161.1 million, compared to $162 million calculated by Cheiron. The variance of 0.56% is well within IRS guidelines, which allow 5% variance. Thus I concluded that the data represented that used by Cheiron. The values presented herein reflect only calculations based on the active population at June 30, 2005.

There are also liabilities associated with the inactive population. Insufficient data is available in the actuarial valuation and in the demographic data in my possession to estimate these liabilities other than by making broad assumptions. These liabilities include the accumulated value of benefit payments already made plus the present value of additional payments to be made in the future.

1446.5

Effect of Inadequate Contributions

In 1996, as part of Manager's Proposal 1, City Council approved a Rate Stabilization Plan aimed at reducing current City contributions, while ramping up in future years to contributing the full actuarial rate by fiscal year 2008. Under the Rate Stabilization Plan, the contribution factor of 7.08% would be used for fiscal year 1996. The contribution factor would then be phased in, beginning at 7.33% for fiscal year 1997 and growing to the projected contribution factor of 13.00% for fiscal year 2008. It was estimated that at this point the rate calculated under Projected Unit Credit would equal that under Entry Age Normal, and in subsequent years, contributions were to be calculated under the Entry Age Normal actuarial cost method. If during the duration of the Rate Stabilization Plan the funded position of the System were to drop below a trigger point of 82.3%, the City was to abandon the Rate Stabilization Rates and begin contributing the full actuarial calculated rate.

Unfortunately, the Rate Stabilization Plan was flawed. It did not account for the 5-year smoothing of assets or for the increasing age of the active population. The rates are shown here:

Fiscal Year	Rate Stabilization Rate	Projected Actuarial Rate
95-96	7.08%	8.60%
96-97	7.33%	9.55%
97-98	7.83%	10.87%
98-99	8.33%	12.18%
99-00	8.83%	12.18%
00-01	9.33%	12.18%
01-02	9.83%	12.18%
02-03	10.33%	12.18%
03-04	10.83%	12.18%
04-05	11.33%	12.18%
05-06	11.83%	12.18%
06-07	12.33%	12.18%
07-08	13.00%	13.00%

If the projected target rate was intended to eventually equal the actuarial rate calculated by the actuary for fiscal year 07-08, the projection should have been recalculated annually as plan experience changed the actual rate from year to year. Also, because of the contribution shortfall that would be created by the Rate Stabilization Plan, there would be actuarial losses generated annually. Therefore, the projected actuarial rates could not be level, as illustrated.

In the beginning, actual actuarial rates were less than the projected rates, but greater than the Rate Stabilization Plan Rates, as shown:

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Fiscal Year	Rate Stabilization Rate	Projected Actuarial Rate	Actual Actuarial Rate
95-96	7.08%	8.60%	8.60%
96-97	7.33%	9.55%	9.55%
97-98	7.83%	10.87%	10.87%
98-99	8.33%	12.18%	10.86%
99-00	8.83%	12.18%	11.48%
00-01	9.33%	12.18%	11.96%
01-02	9.83%	12.18%	12.58%
02-03	10.33%	12.18%	15.59%
03-04	10.83%	12.18%	21.13%
04-05	11.33%	12.18%	27.94%
05-06	11.83%	12.18%	26.86%
06-07	12.33%	12.18%	27.00%
07-08	13.00%	13.00%	N/A

As can be seen, in fiscal year 2002, the actuarial rates began to be greater than the projected actuarial rate.

In 2002, the initial Rate Stabilization Plan was replaced by a new Rate Stabilization Plan created as part of Manager's Proposal 2. It contained the same flaws. The rates were as follows:

Fiscal Year	MP 2 Rate Stabilization Rate	Projected Actuarial Rate	Actual Actuarial Rate
02-03	15.59%	15.59%	15.59%
03-04	17.11%	17.11%	21.13%
04-05	11.33%	17.11%	27.94%
05-06	11.83%	17.11%	31.69%*
06-07	12.33%	17.11%	27.00%
07-08	13.00%	17.11%	N/A

* The 05-06 rate was then reduced to 26.86% due to "Gleason Settlement" requirements.

The agreed upon Rate Stabilization Plan rate schedule was woefully inadequate and was abandoned with the fiscal year 2006 contribution, where under the "Gleason Settlement" a contribution of $130,000,000 was to be made. Thereafter, until fiscal year 2008, the contribution rate would be contributed using a declining 30 year amortization beginning with the June 30, 2004 actuarial valuation.

I have calculated the accumulated value of the inadequate assets at June 30, 2005. The actuarial calculated rates previously calculated by the System actuary reflect the smaller than required contribution by increasing the rate to account for the loss. I have recalculated the actuarial calculated rate as if the full contribution rate were made, then

1946-7

calculated the year's inadequate contribution based upon this revised rate. The annual inadequate rates have been brought forward at the rate of return on market value of assets, as presented at my earlier deposition. Of the $1.394 billion funding shortfall, $143.7 million resulted from agreed upon inadequate funding under the Rate Stabilization Plan.

1996-8

Effect of Eliminating 20% Disability Offset

Manager's Proposal 1 eliminated the requirement of an income earnings test to be performed for Safety Members collecting a disability benefit. In the event the amount of the disability benefit combined with any other income exceeded a certain amount, the disability benefit could previously have been reduced. This had previously been reflected through a 28% reduction in the liability for Safety disability benefits. However, it was discovered that this testing was not occurring, so the assumption was phased out over four years. As of the June 30, 1997 valuation, the income earnings test would no longer be considered. Thus, the removal of the Safety disability offset simply reflected what was already in practice. This enhancement accounts for $54.2 million of the $1.394 billion.

This was calculated by taking the actuarial losses associated with the elimination of the 20% disability offset reported by Rick Roeder in his actuarial valuations of June 30, 1994, 1995, 1996 and 1997 and bringing them forward to June 30, 2005 at 8%.

1446-9

Effect of Increase in Disability Factor for General Members from 33.33% to 50%

The industrial disability benefit for General Members was increased to be the greater of:

1. 50 % (previously 33.33%) x Final Compensation
2. The Service Retirement Allowance, if eligible

This accounts for $5.2 million of the June 30, 2005 funding shortfall, calculated using the demographic data provided by Cheiron, as well as the actuarial assumptions used by Cheiron. Liabilities were calculated both with the 33.33% formula and with the 50% formula and the difference was determined. The liability reflects active members only, since insufficient data was available to calculate the effect on disabled members.

1496.10

Effect of Permissive Purchase of Service Credits

The Purchase of Service Credit plan was expanded under Manager's Proposal 1. Previously, it had been possible for members to purchase additional service credits under special circumstances, such as gaining credit for probationary periods or military leave. The new plan made purchasing of service credits available to all members. They could purchase up to five years, though these credits could not count towards vesting for members hired on or before December 31, 1996. It was stipulated that this pricing was to be cost-neutral for the City, but by setting the price as the average cost over all ages, it was more attractive to older members. The Purchase of Service Credit Plan was not cost-neutral. In fact, the June 30, 2005 unfunded pension liability contains $110.8 million attributable to this Plan. The annual actuarial valuations published as of June 30, 2002, 2003, 2004 and 2005 each show an actuarial loss attributable to the permissive purchase of service credits program, as follows:

06/30/2002	$56,404,000
06/30/2003	12,700,000
06/30/2004	27,100,000
06/30/2005	7,570,308
Total	$103,774,308

When these payments are brought forward at the fund's rate of return, the total is $110.8 million.

The stipulations that members hired before December 31, 1996 could not use purchased service credits towards vesting and that Purchase of Service Credits was required to be cost-neutral were removed with Manager's Proposal 2. Members hired before December 31, 1996 would have had 9.5 years service at June 30, 2005. Therefore, the additional liability associated with removing this requirement was negligible at June 30, 2005.

My calculations accounted only for active members at June 30, 2005, as reported to me by Cheiron. Insufficient data was available to calculate liabilities for retirees.

1496.11

Effect of 13th Check Enhancement

The maximum amount of the 13th Check was increased from $30 per creditable year of service to $60 per creditable year of service for those retiring prior to October 6, 1980, and to $75 per creditable year of service for those retiring prior to December 31, 1971. Although this liability is not considered in the unfunded pension liability, it had a value of $2.8 million at June 30, 2005, calculated using the demographic data provided by Cheiron, as well as the actuarial assumptions used by Cheiron. Liabilities were calculated both with the enhanced formula and without the enhanced formula and the difference was determined.

There is also a loss associated with those payments that have been made in the past. Insufficient data is available to me to calculate this loss.

1446.12

Effect of DROP

Effective April 1, 1997, SDCERS instituted a Deferred Retirement Option Plan (DROP) available to all members. Now when a member of SDCERS becomes eligible to retire, he may elect to DROP, at which point, the employee stops accruing benefits but continues working. The benefits the participant would have been receiving if he had actually retired, including annual COLAs and supplemental benefits, plus 3.05% of each paycheck contributed by both the Member and the City on a pre-tax basis are deposited into an account that is credited with 8.0% interest, compounded quarterly, until the participant leaves employment, for a period of up to five years. At the time of retirement the retiree is entitled to the retirement allowance calculated when electing the DROP, including COLAs and supplemental benefits, as well as the DROP account balance. The participant may elect to receive the amount accumulated in the DROP in the form of a lump sum, equal monthly payments over 20 years, or other actuarially equivalent forms approved by the Board. The DROP was first implemented on a three-year trial basis, but was later approved to be included with other plan provisions

The accrued liability at June 30, 2005 for those members participating in the DROP and still employed is the present value of all anticipated future benefit payments, based on the final compensation, years of service and retirement allowance factors in effect at the time the member entered the DROP.

Had these members not entered the DROP, but remained employed, they would still be accruing additional benefits based on their current compensation, current years of service and current retirement allowance factors. Their accrued liabilities would be the present value of all past accruals, assuming benefit commencement at a future retirement date.

In doing my calculations, I have used actual accrued liabilities for the participants participating in the DROP. For the calculations as if they had not participated, I assumed 4.75% pay increases, continued contributions and retirement date equal to the date they entered the DROP plus the average number of years past DROP participants remained in the DROP. The accrued liabilities for members as if they had not participated were calculated based on the average age, service and compensation of the group. Accrued liabilities were calculated separately for general and safety members.

Additional liabilities were also calculated for former DROP participants who have retired, using average statistics gleaned from past actuarial valuations.

The difference between the accrued liabilities in the DROP and the accrued liabilities as if there were no DROP is $192.3 million.

Effect of Corbett Payments Made From 7/1/95 Through 6/30/94

Under the Corbett Settlement, all DROP members employed as of July 1, 2000, were granted 7% increases to benefit payments made between July 1, 1995, and June 30, 2000. Additionally, the final compensation of the then current DROP participants was increased by 10%.

Corbett payments, as reported to me by Tracy McCraner of the City Audit Division, were made as follows:

11/15/2000	$23,630,603
11/15/2001	5,265,570
11/15/2003	1,453
11/15/2004	16,023,644
Total	$44,921,170

When these payments are brought forward at the fund's rate of return, the total is $52.1 million.

Though considered "contingent" benefits, if not granted in a given year, the 10% increase in retiree's allowances would carry forward to be paid once sufficient funds became available. As of June 30, 2005, Cheiron reports this liability to be $58.9 million.

1446.19

Effect of Enhancements on Individual Board Members

In order to calculate the present value at June 30, 2005 of the benefit gained by individual Board members, I have used the retirement allowance factors in effect before the Board member first voted for an enhancement, demographic data from Human Resources and Cheiron, retirement at the later of the earliest age when eligible for full retirement or July 1, 2007 and the interest and mortality assumptions used by Cheiron. The results obtained are:

Board Member	Present Value at June 30, 2005 of Gain
Terri Webster	$529,775
John Torres	$312,526
Sharon Wilkinson	$430,718
Ron Saathoff	$451,961
Cathy Lexin	$96,540
Mary Vattimo	$107,385
Total	$1,928,905

1446.15